Deferred Maintenance Backlog
Road and Bridges
Goals, Measures and Accomplishments

FY 2001 and 2002
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Sequoia National Park

National Park Service
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FY 2001 and FY 2002

The National Park Service (NPS) continued progress towards meeting the strategic direction established by the Transportation Equity Act for the 21st Century (TEA-21) in FY 2001 and FY 2002 by accomplishing the following goals and objectives:

Death Valley National Park

Roads. Condition indexed to funding level. Indexes a road condition goal (i.e., status quo condition) to funding level ($95-105 million annually) to indicate progress towards meeting TEA-21 goal.

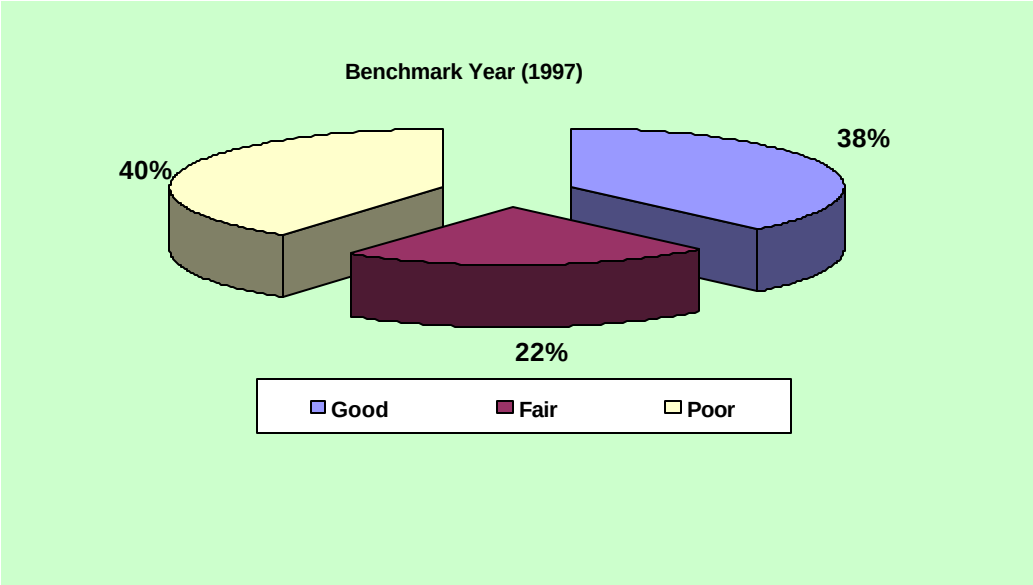
Goal: For many years, the funding level available for NPS roads allowed the road system to deteriorate at 2-3% annually. TEA-21 funding level for roads in FY 2001 and 2002 was approximately $95-105 million which continued to curtail any further deterioration of the paved road system.

Measure: Condition is based on the Pavement Condition Rating (PCR), which considers pavement roughness and surface condition. Data is collected, processed and analyzed on a 3-year cycle, due to the magnitude of inventory and the gradual deterioration rate of pavement. The next update will be the 4th quarter 2003. PCR is the scientific expression of the pavement condition, using a

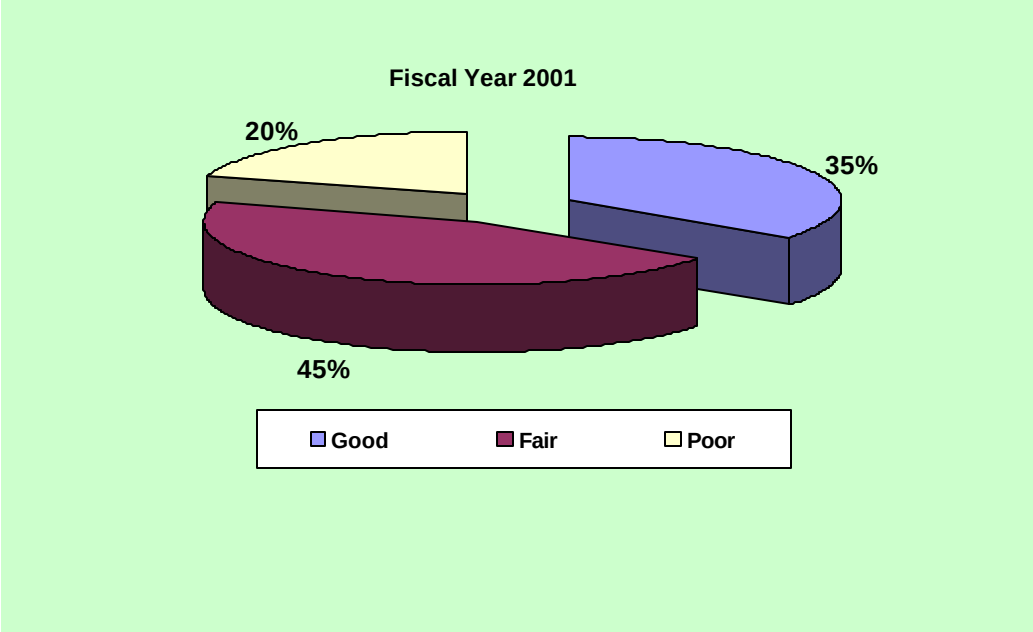
0-100 scale with 0-60 being “poor”; 60-85 being “Fair”; and 86-100 being “Good.”

Roads Accomplishments: The annual rehabilitation of approximately 2 percent of the park roads has stabilized conditions and curtailed further deterioration for the first time since 1987.

Benchmark Year (1997)



Fiscal Years 2001 and 2002



Acadia National Park Roadway section in "Good" Condition

Summary: The NPS is making great headway in limiting further deterioration by distributing the Park Roads and Parkways Program's (PRPP) TEA-21 funding, based on a formula that considers traffic volume, safety accidents, condition and inventory. Based on scientific pavement modeling, the funding split between repair, rehabilitation and resurface (3R) and reconstruction (4R) was also identified, to ensure that the most cost effective miles of road are given priority and to preserve the existing system from further deterioration.

Bridges. Facility condition indexed to funding level. Indexes a bridge condition goal (i.e., status quo) to a funding level (i.e., $15-25 million annually) to indicate progress towards meeting TEA-21 goal.

Goal: In 1981, 18 percent of the bridges were rated deficient categories "A" and "B." Bridges were given priority over road rehabilitation due to the overriding safety concerns to ensure the structure integrity of bridges used by the traveling public. In 1997 (benchmark year), 5 percent of the bridges in the system were rated deficient categories "A" and "B." The TEA-21 funding level was indexed to keep the bridge system status quo.

Measure: As with all bridges on public roads, park road and parkway bridges are inspected and rated every two years. A priority code is assigned to each structure, based on the National Bridge Inspection Standards. The codes may be considered priorities for replacement or repair with "A" being top priority and "E" for a new bridge which is under construction.

A- Closed or is in imminent danger of collapse (see photo right).

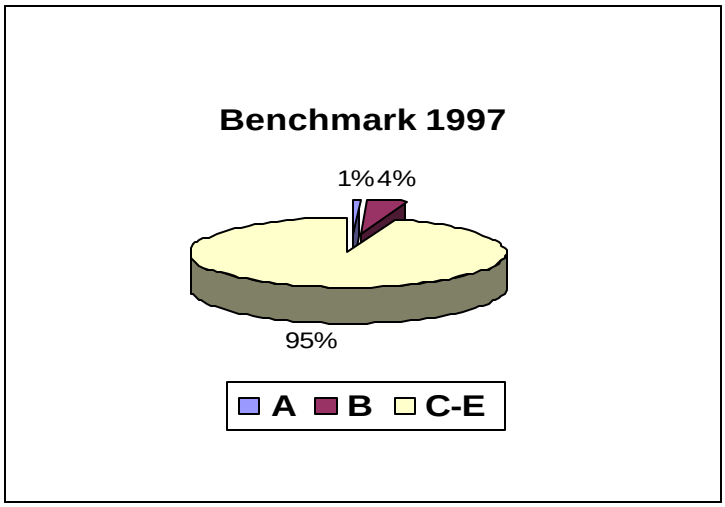
B- Less critically deficient and can remain in service with reduced loads (see photo below).

C- Structurally sound but functionally obsolete, requiring a high degree of maintenance

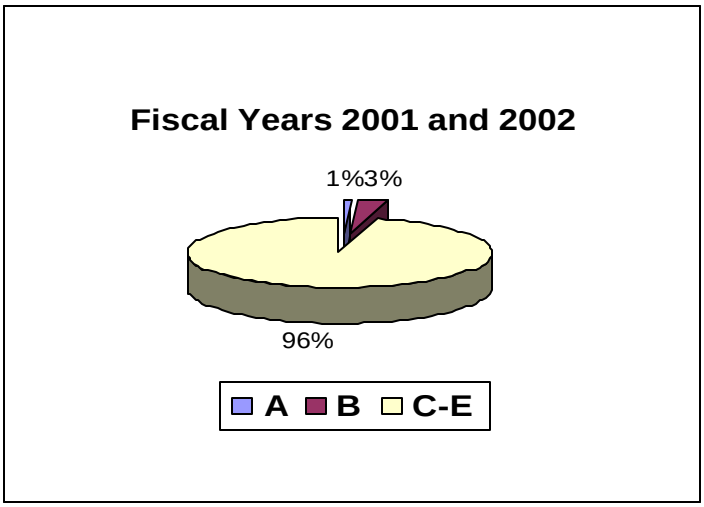
D- Structurally sound and in need of only minor preventive maintenance

E- Bridges which are planned or in the process of being constructed.

Benchmark Year (1997)



Fiscal Years 2001 and 2002



Summary: Under TEA-21, NPS has been able to fund approximately $15-25 million in bridge deferred maintenance rehabilitation work in FY 2001 and 2002. At this funding level, the NPS has been able to continue to curtail any further deterioration of the bridge system.

The Facility Condition Index (FCI). Measures the cost of deferred maintenance versus replacement cost. Indicates the condition of individual facilities or major components of transportation facilities.

Goal: Maintain a FCI through asset management and sound priority allocation that is indexed to the funding level available.

Measure: Facility Condition Index

Benchmark Year:

	Replacement Cost	Deferred Maintenance	FCI*
Roads:	$8,450,100,000	$3,250,104,614	.38
Bridges:	$1,694,135,364	$155,972,016	.09

*FCI condition index for good, fair and poor for roads and bridges have not been developed by the engineers, scientist and facility managers. Meanwhile, FCI condition index for buildings are Good-0-.10; Fair-.11-.15; Poor-above .15; Replace-.5 and greater. No FCI is available for previous years for roads and bridges, so this is the benchmark year.

Obligation Rate of available funds. Traditionally, the Federal Lands Highways Program, Park Roads and Parkways Program has been able to obligate 99% of the available funds.

Goal: 100 percent obligation of available funds.

Measure: Fiscal year obligation rate

Benchmark: 99 percent

FY01: 99 percent

FY02: 99 percent

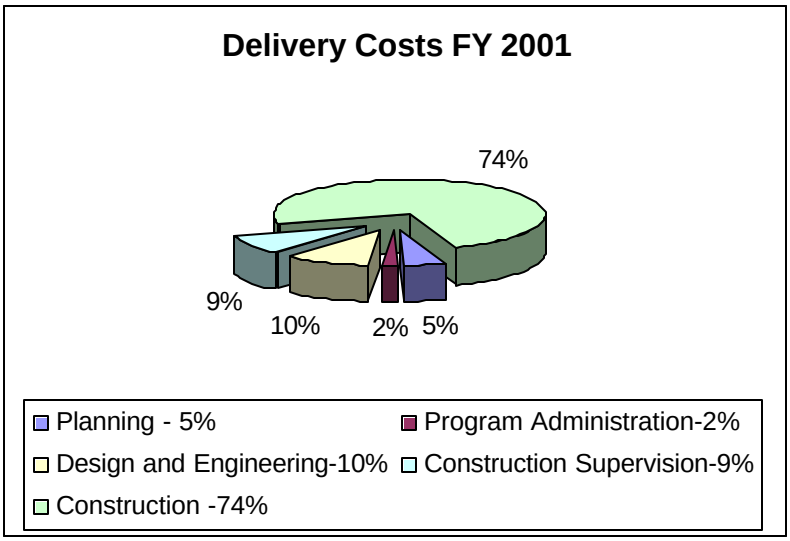
Program Delivery Costs: Establishes measures for program expenditures in the areas of planning, design and engineering, construction, construction supervision, and program administration.

Goal: Manage an effective and efficient construction delivery program through tracking and balancing planning, design and engineering, construction supervision and program administration costs so as to maximize the dollars that are used for construction.

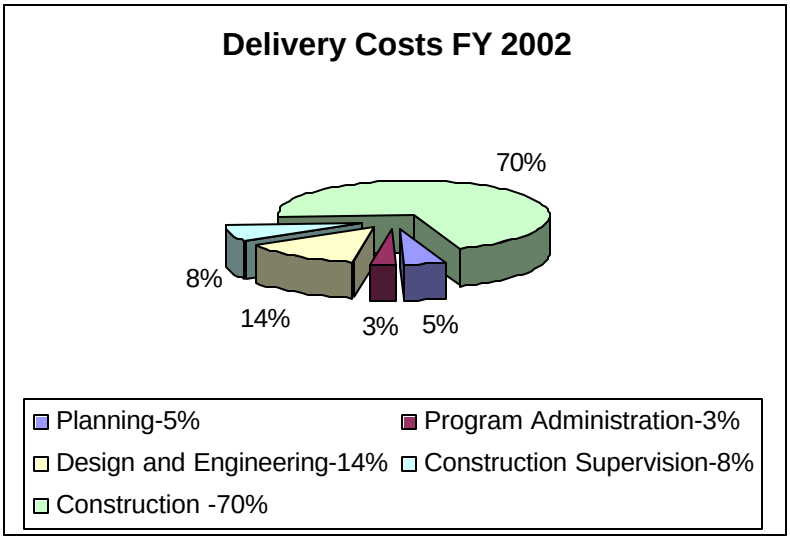
Measure: Expenditures in planning, design and engineering, construction supervision, program administration and construction.

Benchmark: Approximately 70 percent of total available dollars are used for resurfacing, repair, rehabilitation or reconstruction of the NPS road and bridge system. The remaining 30 percent meet National Academy of Science ceilings for engineering and construction supervision as well as other internal policy ceilings.

Fiscal Year 2001



Fiscal Year 2002



Other Program Accomplishments Related to Addressing the Deferred Maintenance Backlog of Transportation Needs Both Directly and Indirectly.

The PRPP has continued to display the highest level of creativity, initiative and innovation to meet commitments to the public, Administration and the Congress during fiscal years 2001 and 2002.

Creativity

- In the joint NPS and Federal Highway Administration (FHWA) administration of the PRPP, goals and measures are in place to provide a benchmark and the on-going success of the program. In completing these measures, we seek to rebuild as many miles of quality mainline roadways and bridges as possible, thus keeping as much of the park road "core" system in optimum condition as economically possible given the funding level provided by TEA-21. Preliminary review of FY 2001 and 2002 costs show that approximately 70 percent of the program dollars were used for construction as opposed to 30 percent non-construction items. The non-construction items break down into construction supervision, project engineering and design, transportation planning and administrative costs. All non-construction items are closely monitored to ensure that the PRPP is within the National Academy of Science and internal NPS policy ceilings. FY 2001 and 2002 were excellent years meeting the overall goals of the NPS and FHWA.

- The PRPP seeks to highlight professional excellence in our staff of both the FHWA and NPS employees who make it possible to deliver an annual $165 million transportation construction program. The "Achievement Awards Program" recognizes and rewards employees who have been outstanding partners in the road building team effort. This year we will honor individuals and teams through the "Honor Star and Team Awards." This encourages and rewards highly motivated and productive employees to continue to be dedicated to product excellence.

- In FY 2001 and 2002, we provided program management in the formulation and implementation of the PRPP to include project scheduling, tracking and funding approvals for $165 million for planning, compliance, engineering, construction supervision and project construction. In FY 2001 and 2002, we managed over 300 road and bridge

projects in various stages, in seven regions and over 100 parks. The FY 2001 and 2002 PRPP budget summary updates were continually updated using the deployment of a pilot web-based budget tracking system. The parks, regions, Federal Highway Administration and Denver Service Center have all greatly benefit from the deployment of this web-based system, increasing the accuracy and speed of processing support cost requests.

Initiative

- In FY 2004, the Highway Trust Fund will be reauthorized, establishing the participation of the NPS in the Federal Lands Highways Program. The PRPP will again be competing with state and other federal agencies for funding and legislative changes that will set the stage for the next 6 years and continue to restore, build and reshape the NPS transportation system for the 21st Century. To support the PRPP in competing for very limited dollars, the NPS drafted a resource paper called "Restoring, Building and Reshaping the National Park Service Transportation System for the 21st Century, Reauthorization Needs Resource Paper, Program Accomplishments, Conditions, Needs and Funding Options," 2002. FY 2001 and 2002 begins the journey to build a strong argument for the continuation of the PRPP participation in the FLHP and to emphasize and make a priority the President's "Parks Legacy Project."

- Continued to monitor the United States Department of Transportation (USDOT) and Department of the Interior (DOI) FY 2002 appropriation legislation, informing and making recommendations to decision makers within the DOI, USDOT and Office of Management and Budget (OMB) regarding the impacts and improvements to the PRPP. We offered legislative language for the next Highway Trust Fund Reauthorization to offset these impacts and improve the program. These recommendations will help support the President's "Parks Legacy Program" to rebuild the NPS's deteriorating transportation system.

- Continued to response to inquiries regarding the significant changes facilitated by TEA-21. TEA-21, Section 1102(f) and 1105, annually adjust the PRPP. In FY 2001 and FY 2002, Section 1102(f) reduced the PRPP by $19.6 million and $15.6 million respectfully. In addition, historically PRPP did not participate in the Revenue Aligned Budget Authority provided by Section 1105. After much education, this year the PRPP did participate in section 1105 to gain $21.3 million in additional funds. This is a significant increase that allowed an additional 5-10 deferred maintenance rehabilitation projects to move up for award earlier. Over the life of TEA21, the PRPP has experienced construction project earmarks, which have significantly impacted the PRPP funding level and delayed award on deferred maintenance rehabilitation projects. Reflecting on the impact of these earmarks, future legislative earmarks shifted to another FLHP category called the Discretionary Program. Although still impacting the overall FLHP, the shift precluded a reduction to the PRPP of about $20 million in both FY 2001 and FY 2002. NPS always stood ready to answer inquiries with regards to the direct and

indirect impact to the PRPP on established and proposed legislation, showing initiative to keeping decision makers abreast of legislative impacts to the PRPP, especially with regards to keeping on course to reduce the road and bridge deferred maintenance backlog.

- For the first time in the history of the NPS, we have become an associate member with the American Association of State Highway and Transportation Officials (AASHTO). As an Associate Member we are entitled to non-voting, ex officio membership on all AASHTO committees. AASHTO has a senior executive member (normally the State's Secretary of Transportation) from each of the 52 state highway and transportation departments and greatly influences transportation standards, practices and policies at the local, State and Federal levels. Joining will help facilitate a stronger opportunity for Federal, State and local partnerships to build a more efficient and effective transportation system for the public users in and around our 386 urban and rural national parks.

Innovation

- Title 23, Section 204, requires the NPS to have management systems (pavement, bridges, safety and congestion) to inventory and assess the condition of our transportation system. These management systems have been very successful in identifying the transportation systems needs and influencing the distribution of funds Servicewide. Most importantly, they have been successful in articulating the magnitude of need in the deferred maintenance backlog for roads and bridges. President Bush is voicing strong support for rebuilding the NPS backlog of infrastructure needs, of which over half is identified as transportation related. In support of the "Parks Legacy Project," the NPS, in cooperation with the FHWA, drafted the report, " National Park Service, Roads and Bridges, Deferred Maintenance Needs and Funding Options," October 2001. Technical support based on inventory, condition, assessments and funding options developed with FHWA and used to support the President's "Parks Legacy Project" initiative. These management systems strive to use state-of-the-art data collection equipment, technologies, practices and professional analysis tools reflecting creativity, initiative and innovation. These management systems allow us to better meet the challenge by optimizing expenditures to get the best return on dollars spent annually. In addition, they provide us the mechanism to report our program accomplishments in the area such as condition improvements.

- To meet new demands in delivering a larger construction program, the FHWA

and NPS are seeking new and innovative strategies to scope, design, and award construction contracts. Many of the NPS construction projects already use Architectural/Engineering contracts to complete the compliance, design and construction supervision of construction projects and has been a successful strategy for many years. To take this a step further, the PRPP has explored the use of design/build contracts. An excellent example is the $26 million design/build contract awarded in FY 2002 to complete the Natchez Trace Parkway's last section located at the southern terminus, Natchez, Mississippi.

Sequoia National Park

Before rehabilitation
Front Cover is after rehabilitation

Department of Interior

National Park Service